The worst case input values are the required value for each factor that produces the maximum negative affect on the output. That is, the plot of AADT against MOE results in the lowest AADT value for a given LOS. Again note that in a few cases, the factor is actually decreasing in value instead of increasing if it is used in the denominator of an equation.

For the default case input values, NCDOT desired to have values for each factor representative of the average facility for urban, suburban, and rural planning analyses in all three regions across the state. Given that each planning analysis could include the three terrain types plus specific grade analyses, a large matrix quickly developed for each of the facility types. Some of the values for the factors were based on judgment of the researchers and the NCDOT staff. However, a few of the factors were based on analysis of traffic count information. For example, NCDOT provided traffic count information for 2002 at 100 continuous traffic count stations located throughout North Carolina. The analysis of the data yielded vehicle classification count numbers that allowed for specific truck percentages to be determined for each region and various facility types (Table 8).

REGION	FUNCTIONAL CLASS	2A-SU	3A-SU	4A-SU	4A-ST	5A-ST	6A-ST	7A-MT	TOTAL TRUCKS*
Coastal	Rural Minor Arterial	4.76%	14.40%	2.14%	2.98%	8.57%	0.24%	0.00%	**33.10%**
Coastal	Rural Principal Arterial - Other	2.89%	1.24%	0.11%	1.73%	4.50%	0.17%	0.02%	**10.65%**
Coastal	Urban Minor Arterial	1.51%	1.06%	0.01%	1.62%	0.20%	0.18%	0.04%	**4.62%**
Coastal	Ubran Principal Arterial	2.52%	0.97%	0.59%	2.84%	3.91%	0.23%	0.04%	**11.10%**
Mountainous	Rural Minor Arterial	3.25%	1.75%	0.15%	1.52%	1.26%	0.21%	0.04%	**8.18%**
Mountainous	Rural Principal Arterial - Interstate	2.85%	2.60%	1.47%	5.37%	16.24%	0.91%	0.18%	**29.63%**
Mountainous	Rural Principal Arterial - Other	2.89%	1.73%	0.35%	1.79%	4.41%	0.20%	0.03%	**11.39%**
Mountainous	Urban Minor Arterial	2.17%	2.19%	0.42%	2.22%	1.20%	0.38%	0.08%	**8.66%**
Mountainous	Ubran Principal Arterial - Other	2.15%	1.50%	0.21%	1.30%	1.18%	0.18%	0.04%	**6.56%**
Piedmont	Rural Minor Arterial	3.21%	1.20%	0.19%	1.78%	4.97%	0.15%	0.01%	**11.52%**
Piedmont	Rural Principal Arterial - Interstate	2.34%	1.25%	0.78%	4.12%	19.82%	0.38%	0.09%	**28.78%**
Piedmont	Rural Principal Arterial - Other	2.69%	1.53%	0.25%	2.21%	7.67%	0.29%	0.04%	**14.67%**
Piedmont	Urban Minor Arterial	2.04%	0.83%	0.05%	1.03%	0.54%	0.06%	0.01%	**4.55%**
Piedmont	Urban Principal Arterial - Other	2.58%	1.93%	0.41%	3.63%	13.50%	0.53%	0.12%	**22.70%**
Piedmont	Urban Principal Arterial - Interstate	2.35%	1.31%	0.18%	1.98%	2.95%	0.23%	0.04%	**9.03%**

* - ' TOTAL TRUCKS ' is the sum of the percentages for the seven classes of heavy trucks (2A-SU through 7A-MT)

Table 8. Truck Percentages

The following pages show the default and other values used to produce the graphs for each of the facility types. The best and worst case values are displayed at the top of each facility type matrix with the default values for each possible scenario listed below. The breakdown of each matrix is first by region, then by location, and finally by surrounding terrain. Note that while the regions (Coastal, Piedmont, Mountains) remain constant across all facility types, the location and terrain categories for arterials are replaced by design category and functional category, respectively, due to the slightly different methodology involved with the arterial class of highways.